IN THE SPECIFICATION:

Delete the paragraph [0027] and replace it with the following new paragraph:

[0027] There is also the question of Quality of Service (Q0S) to address. Different input sources have different requirements in terms of how their data should be delivered. For example voice data must be guaranteed to a very tightly controlled delivery service whereas the handling of computer data can be more relaxed. To accommodate these requirements the concept of priority can be used. Data is given a level of priority, which changes the way the switch deals with it. For example consider two cells in different VOQs $c1$ and $c2$ which are both requesting to go to the same output. Although either could be selected only one can be delivered. The cell with the 'highest' priority is chosen. This decision making process is referred to as "arbitration". It is not nly priority which can be a factor in the arbitration process. Another example would involve monitoring the length of the VOQs and also using them as a determining factor. It should also be noted that as switches become faster and larger then a more intelligent approach to arbitration needs to be sought. The ideal solution is for a distributed arbitration mechanism where there exists levels of arbitration right through the switch from the core right back to the inputs. Using such a mechanism arbitration can be very finely tuned to cater for the most demanding quality of service requirements. By using buffers in switches the system runs the risk of losing cells i.e. the buffer overflows. To overcome this problem and also to efficiently size the buffers the concept of backpressure flow control across the switch can be employed. Using backpressure an output can inform the input that is connected to it that it is filling too quickly and is about to lose cells. The input can now back off or slow down the rate at which it is sending the cells and therefore reduce or completely eliminate the risk of cell loss.